

In the Claims

Claim 1 (currently amended): A diode 2 comprising a connecting means 6 and a heat sink base 7;

said connecting means 6 comprising a flat end 5 fixed at a die 16 and the other end having no fixed shape;

said heat sink base 7 comprising;

a base 18 which is on the bottom of the heat sink base 7;

a press-fit region 4 which is around said base 18;

a solder platform 17 which is above said base 18;

a die 16 which has a first side and a second side electrically coupled to said flat end 5 and said solder platform 17, respectively;

an acclivitous shoulder 12 which is extended ~~acclivitously~~ from said solder platform 17, the root of said shoulder 12 connected to said solder platform 17; and

a cup 14 which is extended upwardly from the periphery of said base 18;

characterized in that said solder platform 17 has an anchor mechanism 11 equipped with said acclivitous shoulder 12 and a kink 13, and said mechanism can not only absorb the stress generated by the epoxy package 8 but also guide micro-deformation 22', and provide a longer path for moisture to reach the die 16, thereby avoiding damage of said die 16 and resulting in a rough contacting interface between said die 16 and solder platform 17, and preventing moisture from reaching the die 16 directly even if moisture enters the gap existing between the shoulder 12 and the passivative film 10.

Claim 2 (original): The diode 2 of Claim 1, wherein said shoulder 12 has a height which is substantially the same as said die 16.

Claim 3 (original): The diode 2 of Claim 1, wherein said connecting means 6 is a lead wire.

Claim 4 (original): The diode 2 of Claim 1, further comprises two solder layers 15a and 15b which sandwich said die 16 above and under, respectively.

Claim 5 (previously presented): The diode 2 of Claim 4, further comprises passive film 10 used to surround said wafer 16.

Claim 6 (previously presented): The diode 2 of Claim 5, further comprises an epoxy 8 for surrounding outside said passive film 10.

Claim 7 (currently amended): The diode 2 of Claim 6, further comprises a sheath 20 for surrounding said epoxy package 8 inside said cup 14.

Claim 8 (currently amended): The diode 2 of Claim 6, further comprises a sheath 20 for surrounding said epoxy package 8 outside said cup 14.